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10/732,911	12/10/2003	Bruce J. Cardinal	ETWSP002	6813

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EXAMINER

BAHTA, KIDEST

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/732,911
Filing Date: December 10, 2003
Appellant(s): CARDINAL ET AL.

MAILED

AUG 22 2007

Technology Center 2100

Bruce Cardinal
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 26, 2007 appealing from the Office action mailed September 11, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

For the above reasons, it is believed that the rejections should be sustained.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal: is contained in the brief.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

This appeal involves claims 1-67.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

Prior art of record

US 5, 870,302	Oliver	02/1999
US 6,647,319	Goldberg	11/2003
US 6,675,098	Peek et al.	01/2004
US 2003/0182022	Addink et al.	09/2003

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

1. Claims 1,4, 7-20, 23-29 and 34-60 are rejected under 35 U.S.C. 102(b) as being anticipated by Oliver (U.S. Patent 5,870,302).
2. Claims 2-3, 5-6, 21-22 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver (U.S. Patent 5,870,302) in view of Peek et al. (U. S. Patent 6,675,098).
3. Claims 64-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver (U.S. Patent 5,870,302) in view of Goldberg (US 6,647,319).
4. Claims 66-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver (U.S. Patent 5,870,302) in view of Addink et al. (US 2003/0182022).

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US 5, 870,302	Oliver	02/1999
US 6,647,319	Goldberg	11/2003
US 6,675,098	Peek et al.	01/2004
US 2003/0182022	Addink et al.	09/2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 7-20, 23-29 and 34-60 are rejected under 35 U.S.C. 102(b) as being anticipated by Oliver (U.S. Patent 5,870,302).

Regarding claims 1 and 59-60, Oliver discloses that receiving landscape and environmental information and deriving an individual station (Fig. 10, Zone A, Zone B and Zone C, i.e., which include site location; column 9, lines 60-67, i.e., each irrigation site 9 or a single watering factor may be *computed for each irrigation site*) irrigation schedule based on the landscape information and the environmental information; and sending the individual station irrigation schedule to an irrigation control unit (Abstract, Fig. 6). In addition, the control irrigation system is receiving and sending information from each (first and second) irrigation site and deriving schedule for each (first and second) irrigation site (Fig. 10, column 13, lines 1-35, i.e., Site A and Site B). Furthermore, Oliver irrigation control system has a computer, which is inherent to have a memory and a processor to receive instruction and execute (column 21, lines 50-56; i.e., An .STO data file stores the current watering schedule for each site computer 1.

After the host computer 4 determines when and how much to water, the watering scheduling information is then passed to the site computer 1. The site computer 1 then uses this new information for the watering schedule).

Regarding claims 4, 7-20, 23-29 and 34-58, Oliver discloses the environmental information includes evapotranspiration (ET) information (abstract); the environmental information includes weather information (column 5, lines 56-65); the irrigation schedule includes a restriction on the amount of water used (column 6, lines 25-30); the irrigation schedule includes balancing usage with other sites (column 14, line 52); the irrigation schedule includes accounting for needs of the most demanding plant (column 8, lines 20-28); deriving the irrigation schedule includes selecting an algorithm used for deriving the irrigation schedule from a plurality of algorithms (column 17 and column 18); sending the irrigation schedule to an irrigation control unit is initiated by the irrigation control unit (column 1, lines 15-18); sending the irrigation schedule to an irrigation control unit is initiated by the irrigation control unit and the irrigation control unit uses a pull model to request the irrigation schedule (Fig. 10); in the event that sending the irrigation schedule fails, further comprising providing an alert (column 9, lines 60-67); performing irrigation using stored irrigation schedule on the irrigation control unit (column 10, lines 22-25); uploading meter data from the irrigation control unit to a central control (column 8, lines 30-37), the landscape information includes irrigation method (column 1, lines 15-20), precipitation rate (column 3, lines 10-15), distribution uniformity (column 14, lines 9-10); root depth of plant (column 5, line 45), and number of emitters per plant and flow rate of emitter (column 9, lines 66-65), sun exposure

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information (Fig. 4); plant coefficient by month (column 8, line 65-column 9, line 4); the irrigation schedule is optimized for one or more stations (column 4, lines 5-8; column 15, line 35); multiple stations operating simultaneously (Fig. 6); the irrigation schedule is derived using station flow rates and maximum allowable system flow (column 15, lines 16-19) and automatically adjusted for rainfall (column 2, lines 50-53); deriving the irrigation schedule includes minimizing runoff (column 1, lines 55); the irrigation schedule includes hourly restrictions (column 7, lines 20-21); the irrigation schedule includes non-watering days (column 7, lines 8-15); deriving the irrigation schedule includes accounting for the priority of stations (column 11, lines 51-61); landscape information includes seasonality of plants (column 5, lines 45); the irrigation schedule is derived using station flow rates provided by a flow sensor (column 8, lines 30-32); the irrigation schedule is optimized to fit within a user-defined water window (column 1, lines 39-55); the irrigation schedule includes individual station schedules derived using a plurality of algorithms and selecting an algorithm based on an irrigation method and geographic location (column 7, lines 16-30, column 17-18).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 2-3, 5-6, 21-22 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver (U.S. Patent 5,870,302) in view of Peek et al. (U. S. Patent 6,675,098).

Regarding claims 2-3, 5-6, 20-21 and 30-33, Oliver discloses the limitations of claim 1 as stated in Par. 2, however Oliver fails to disclose the limitations of claims 2-3, 5-6, 20-21 and 30-33, which is the irrigation schedule is sent to the irrigation control unit via network and Internet. In addition the information of the irrigation is view via Web interface. Peak discloses the irrigation schedule is sent to the irrigation control unit via network and Internet (Fig. 14, Fig. 16 and Fig. 17) and in addition, the information of the irrigation is view via Web (Fig. 14, element 388, i.e., server system).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify the teachings of Oliver with the teachings Peek in order to provide the easy and fast communication.

5. Claims 64-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver (U.S. Patent 5,870,302) in view of Goldberg (US 6,647,319).

Regarding claims 64-65, Oliver discloses the limitations of claim1 as stated in Par. 2, but Oliver fails to disclose the limitations of claims 64 and 65. Goldberg discloses the limitations of claims 64 and 65 in Fig. 1-2, column 4, line 50- column 5, line 33; "For manual watering, pushbutton 28 is pressed once. This immediately starts a watering sequence. Pressing pushbutton 28 again skips to the next station in the sequence. Pressing pushbutton 28 while terminal 22 is energized stops the manual watering. Manual watering may normally cause a single iteration of the stations for ten minutes

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each. Manual watering cannot be initiated while an automatic cycle is in progress. The controller 54 may, for example, default on power-up to ten minutes per station once each day. As in the controller 10, a scrolling of the LEDs 60 through 68 signals the power-on default condition. To change the 5 default condition, button 56 is first pushed to select a station--once for Station 1, twice for Station 2, and so on. Pushing button 56 a fifth time turns the controller 54 off and lights the no-watering LED 60. Any push of button 56 stops the scrolling, and the chosen station's LED repetitively blinks twice, indicating a ten-minute cycle duration. Button 58 can now be pushed one or more times to select the desired cycle length for that station. Successive pressings of button 58 will select 0, 5, 10 15, or 20 minutes. Each selection is confirmed by the repetitive blinking of the pertinent one of LEDs 62-66 with zero to four blinks, respectively.

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify the teachings of Oliver with the teachings Goldberg in order for the clock timer to synchronize with real time.

6. Claims 66-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver (U.S. Patent 5,870,302) in view of Addink et al. (US 2003/0182022).

Regarding claims 66-67, Oliver discloses the limitations of claim1 as stated in Par. 2, but Oliver fails to disclose the limitations of claims 66-67. Addink discloses the limitations of claims 66-67 in the abstract "An interactive irrigation system exchanges information between an irrigation controller and a host computer, between the irrigation controller and a user, between the user and the host computer, and between the host

computer and a third party. The information is preferably exchanged over an Internet communication system. The exchanged information includes the following: irrigation scheduling; quantity of water applied to the irrigated area at the user location, which is compared to ET values; warnings to users when potential problems with their irrigation systems are detected; and other irrigation information that is useful to the user or a third party".

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify the teachings of Oliver with the teachings Addink in order provide remote host computer monitors the operation of the irrigation system, to assist an irrigation user in attaining more efficient irrigation of the irrigated area. What is especially needed are systems and methods in which the remote host computer communicates over the Internet (1) with an irrigation controller at the user's site, (2) with the user, and (3) with a third party.

(10) Response to Argument

Appellants stated in the argument (VII. ARGUMENT, Page 4 of 16) that Examiner rejected claims 1-67 under 35 U.S.C. 102 (b). However, Examiner disagree since last Office Action, mailed September 11, 2006, include the following rejection,

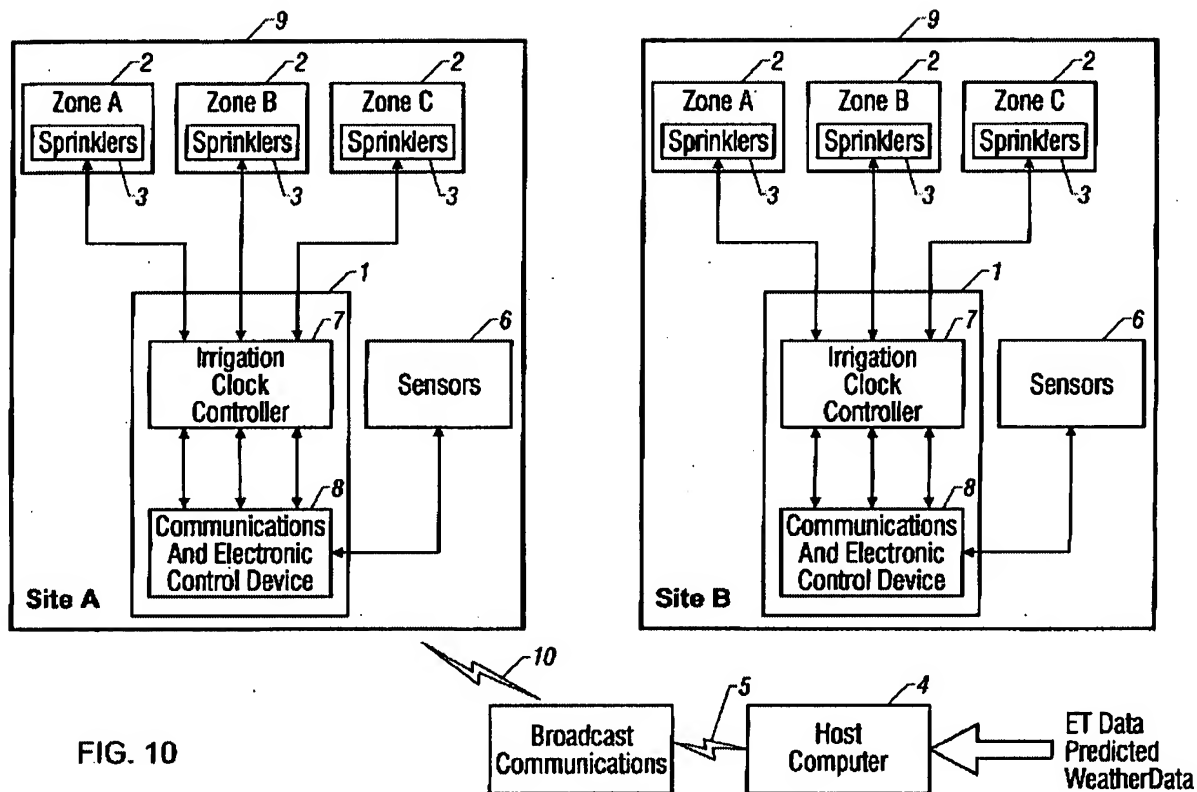
1. Claims 1,4, 7-20, 23-29 and 34-60 are rejected under 35 U.S.C. 102(b) as being anticipated by Oliver (U.S. Patent 5,870,302).
2. Claims 2-3, 5-6, 21-22 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver (U.S. Patent 5,870,302) in view of Peek et al. (U. S. Patent 6,675,098).

3. Claims 64-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver (U.S. Patent 5,870,302) in view of Goldberg (US 6,647,319).
4. Claims 66-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver (U.S. Patent 5,870,302) in view of Addink et al. (US 2003/0182022).

Regarding independent claims 1, 59 and 60, Appellants argue that Oliver fails to disclose deriving a first individual station irrigation schedule for the first irrigation site based on the first landscape information and the first environmental information and a second individual station irrigation schedule for the second irrigation site based on the second landscape information and the second environmental information, where the first irrigation site is associated with a first user and the second irrigation site is associated with a second user.

Examiner disagrees since Oliver discloses a *watering schedule can be independently determined for each zone (zone A, Zone B, Zone C...) in the site (site A, Site B...) see Fig. 10,*

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Column 3, lines 40-60;

In the present invention, the host computer may be coupled to the site control devices in a variety of ways. For example, the host and the site control devices at all sites may be coupled by wireless links, such as radio or microwave, or may be hard-wired together, such as by telephone lines. Alternatively, the host may be coupled (either by wireless link or hardwired) to a single site control device, which may be in turn coupled to one or more "satellite" site control devices. The watering factor may be computed from a variety of data. For example, the watering factor may be computed from meteorological data and forecasted weather conditions collected by the host computer. Alternatively, a "closed loop" system may be provided, in which meteorological (and even other) data may be collected and stored by each of the site control devices, which data is then sent to the host computer and incorporated into the computation of the watering factor. In such a closed loop system, the host computer can be configured such that it computes a unique watering factor for each site and irrigation zone within the site.

Column 11, line 62- column 12, line 8;

A watering factor may be computed for each irrigation site 9 or for each zone 2 at each irrigation site 9, or a single watering factor may be determined for all of the irrigation sites. The latter alternative is least attractive, as it fails to account for variations at each irrigation site 9. By using a more universal watering factor for a specific set of sites in the same or similar climatic area, however, a more cost-effective electronic delivery of the new watering schedules can be

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implemented. *Conversely, the most attractive alternative, in terms of precise scheduling, is to calculate a separate watering factor for each zone 2 based on a reference watering schedule corresponding to each zone 2, and, even more accurately, also based on data obtained from sensors 6 at each irrigation site 9.*

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

(12) Conclusion

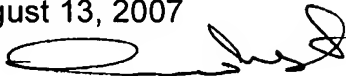
A copy of the claims involved in the present appeal is attached hereto as Appendix A on applicant appeal brief.

For the above reason, it is believed that the rejections should be sustained.

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Respectfully submitted

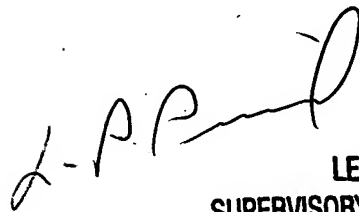
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